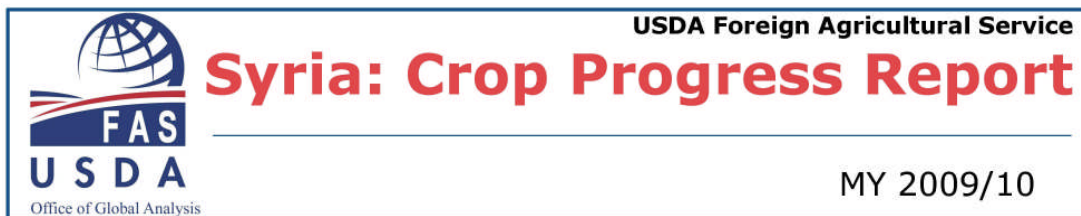


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**December Summary**

**December 23, 2008**

- (1) Early planting season precipitation events occurred at the end of October and favored northern and central Syria, providing normal or better than normal precipitation and subsequent soil moisture for winter wheat planting. Southwest and northeastern Syria remains in drought conditions that have continued through since late last year.
- (2) Minimal precipitation has dropped over Syria since early November resulting in poor conditions for planting on non-irrigated land throughout the entire country (Figure 2). The current 7-day precipitation forecast, however, predicts significant rain of 10 to 25 mm over most agricultural areas adding much needed moisture to the soil for late season planting.
- (3) A comparison of current year MODIS NDVI to the five year normals show generally below normal vegetation abundance over agricultural areas in Syria. Above average vegetation anomalies occur mainly in the irrigated agricultural fields along the Euphrates river, and in the non-agricultural sections of northern Aleppo province and the Mediterranean coast (Figure 3).
- (4) MODIS NDVI comparison over the three main agricultural producing provinces Al-Hasakah, Ar-Raqqa, and Aleppo (Halab) show vegetation prospects this year (MY 2009/10) to be generally better than during last year's drought conditions, though still below the five year normals level (Figure 4). Ar-Raqqa province remains below last year's vegetation levels which is likely a combination of the continued drought conditions and the high percentage of rainfed crop area.
- (5) Analysis of high resolution imagery shows evidence that late season field preparation and grain planting were still underway in early December in the northeast (Figure 5). This late season sowing is probably the result of waiting on rainfall and more favorable soil moisture conditions for planting, though this has not yet come.

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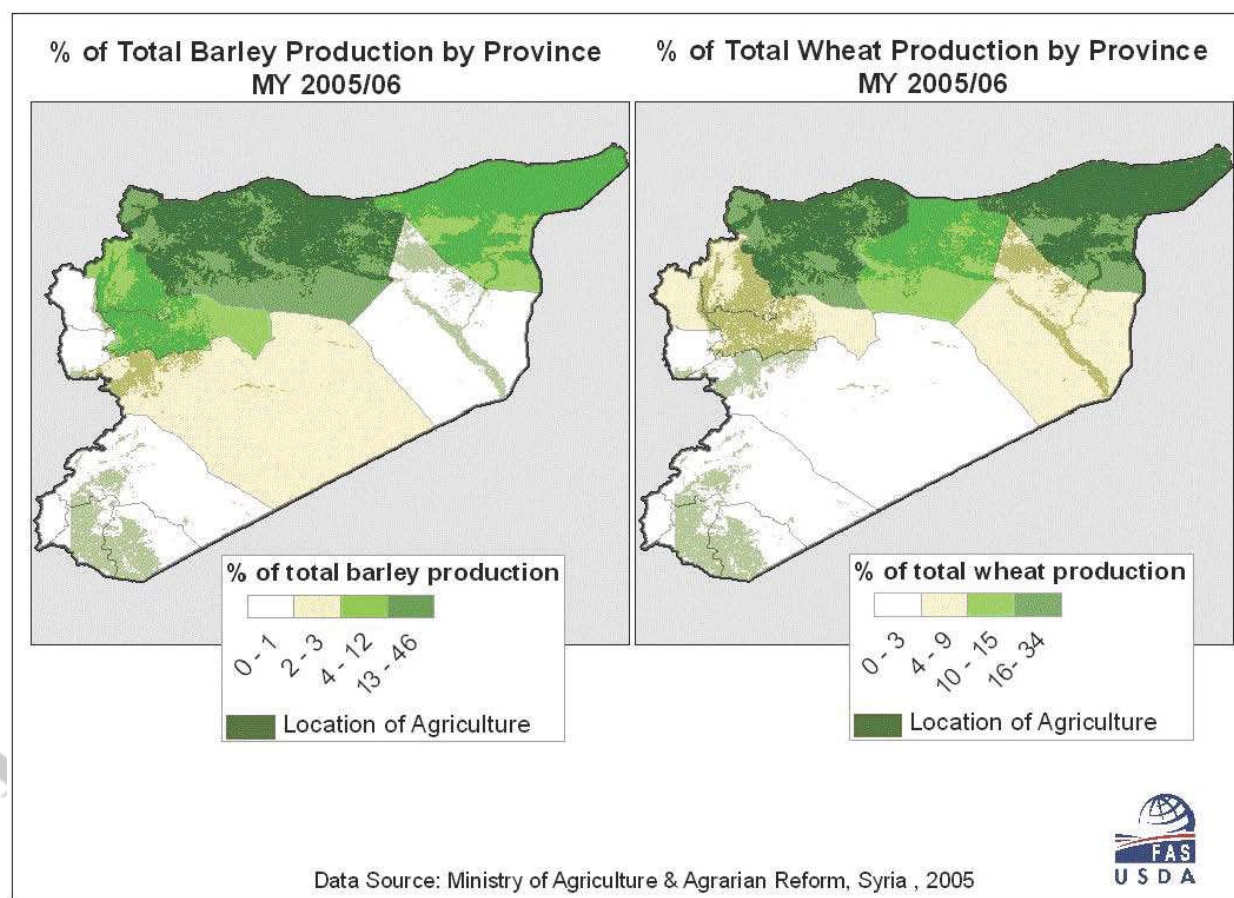
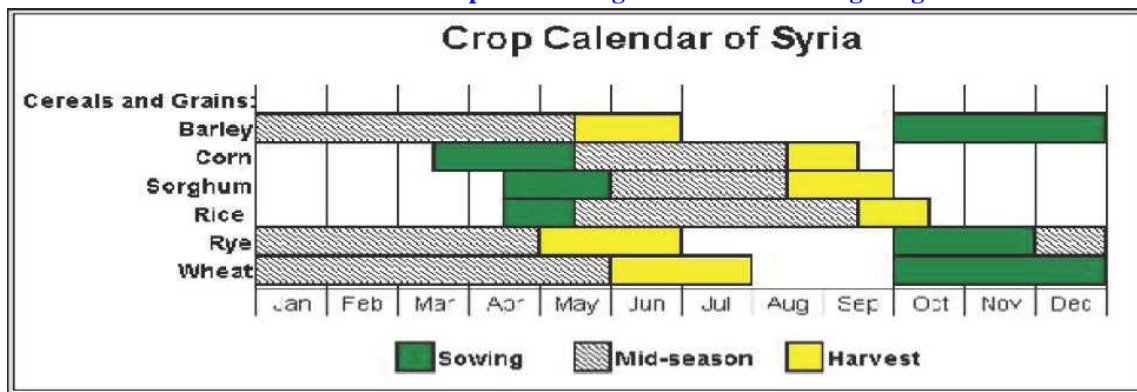


Figure 1. Breakdown by province, percent of total wheat and barley production in Syria.

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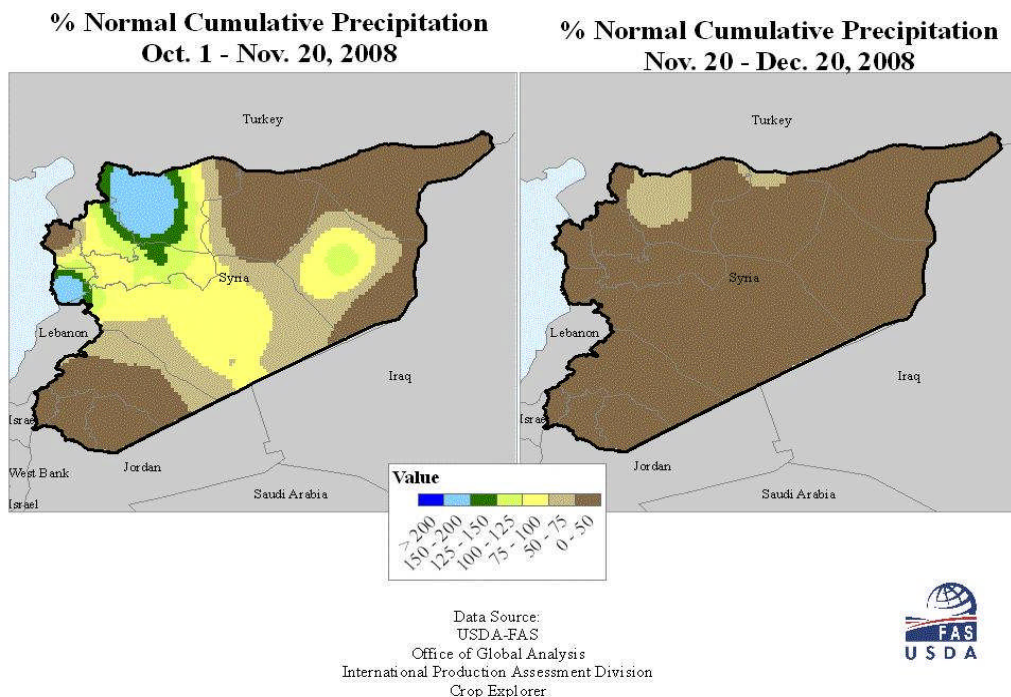


Figure 2. % of normal cumulative precipitation during the first half of the planting season, October through mid-November, and the following three decades November 21 through December 20.

**Precipitation Forecast: Dec. 22 - December 29, 2008**

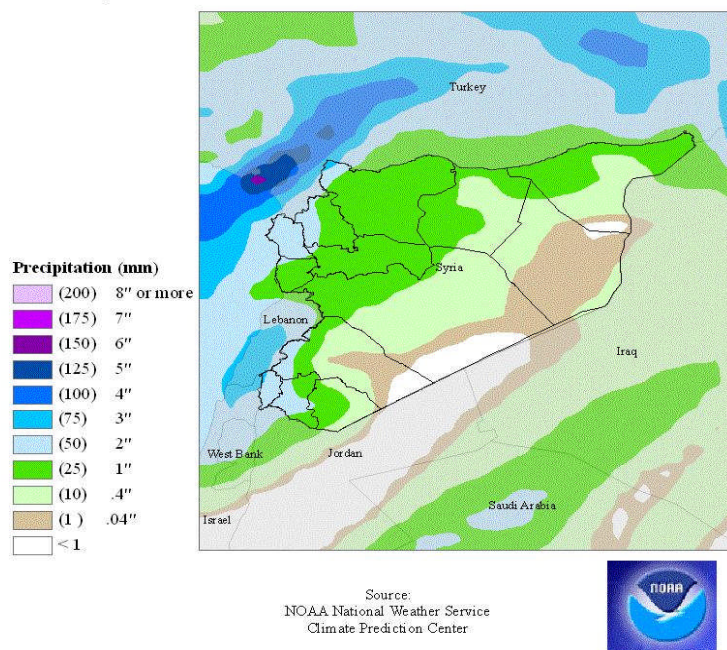


Figure 3. Precipitation model for Syria, 7 day cumulative forecast.



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**MODIS NDVI 16-day anomaly - Departure from 5 year average**

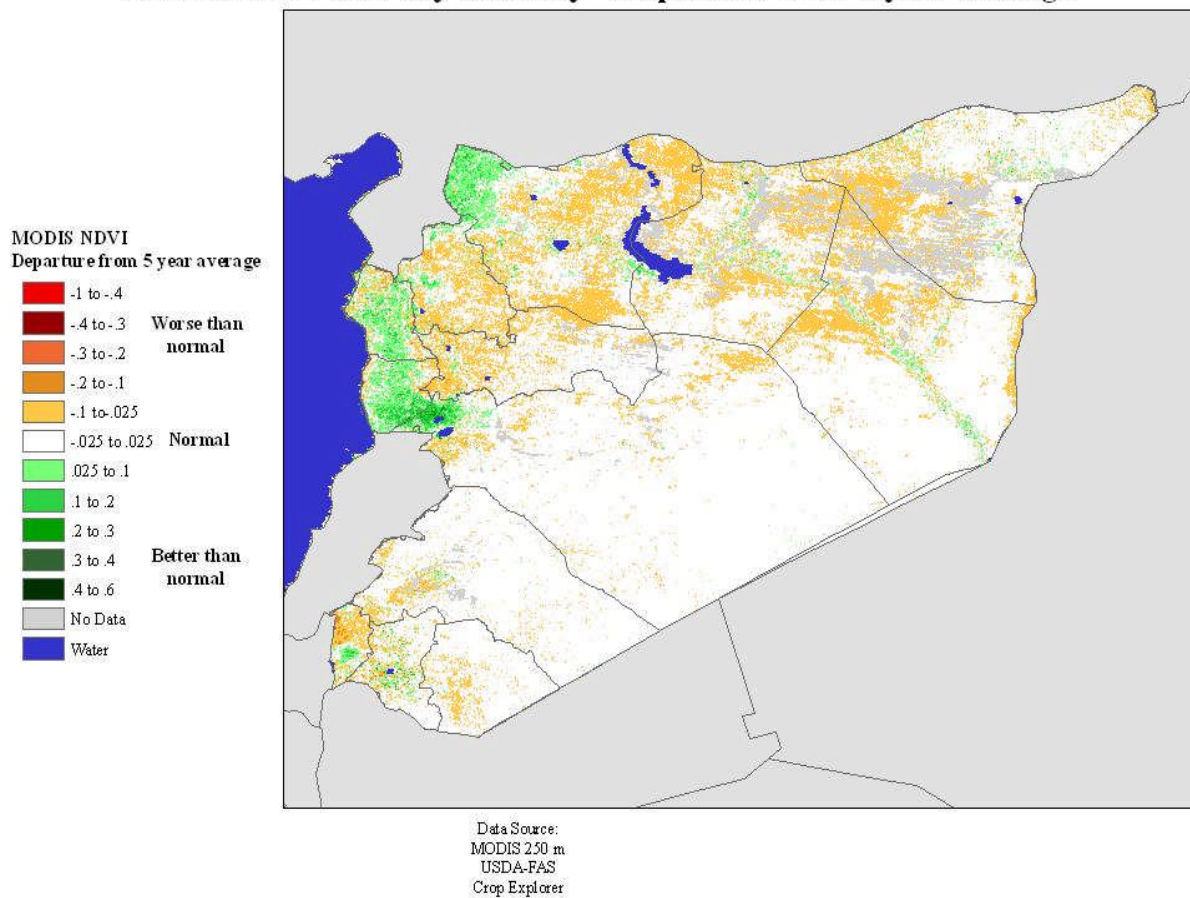
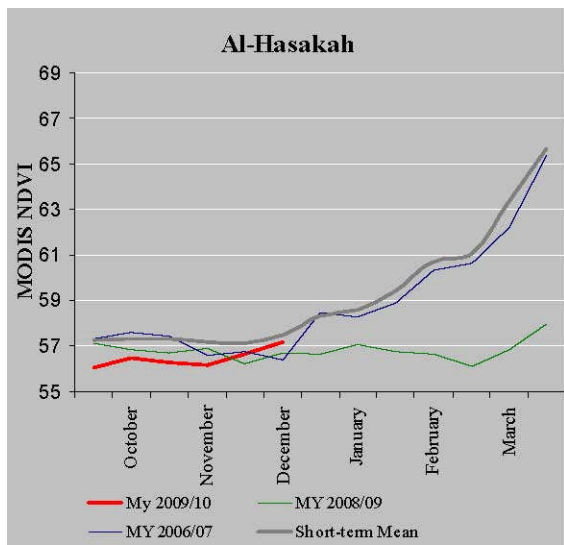


Figure 4. MODIS NDVI comparison of vegetation abundance in the current year to 5 year normals.

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**AlHasakah**

**Crop water source:**

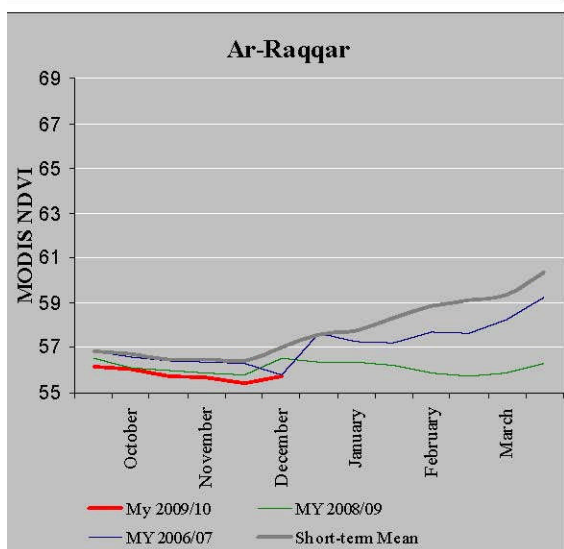
Irrigated: 32%

Rainfed: 68%

**% of national crop area:**

Wheat: 34%

Barley: 9%



**Ar-Raqqar**

**Crop water source:**

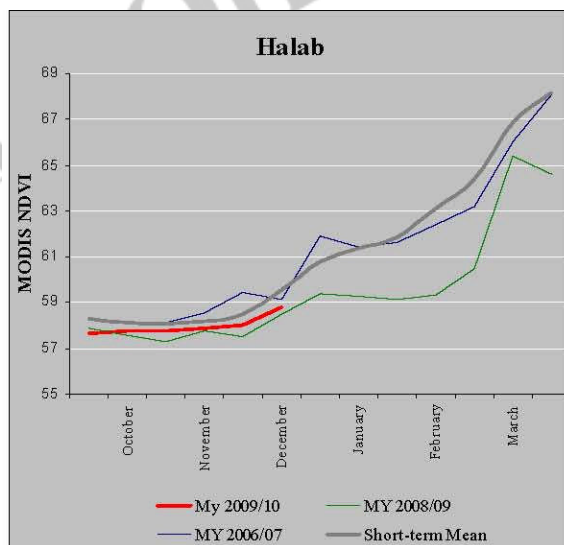
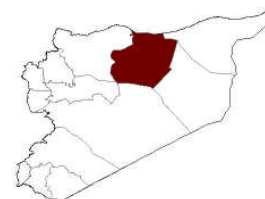
Irrigated: 21%

Rainfed: 79%

**% of national crop area:**

Wheat: 14%

Barley: 15%



**Halab**

**Crop water source:**

Irrigated: 18%

Rainfed: 82%

**% of national crop area:**

Wheat: 18%

Barley: 46%

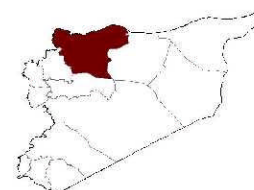


Figure X. MODIS NDVI values in major crop producing provinces. Current year crops compared against short term MODIS normals, 2008/09 drought year, and 2006/07 representing the last benchmark year of good crop production.

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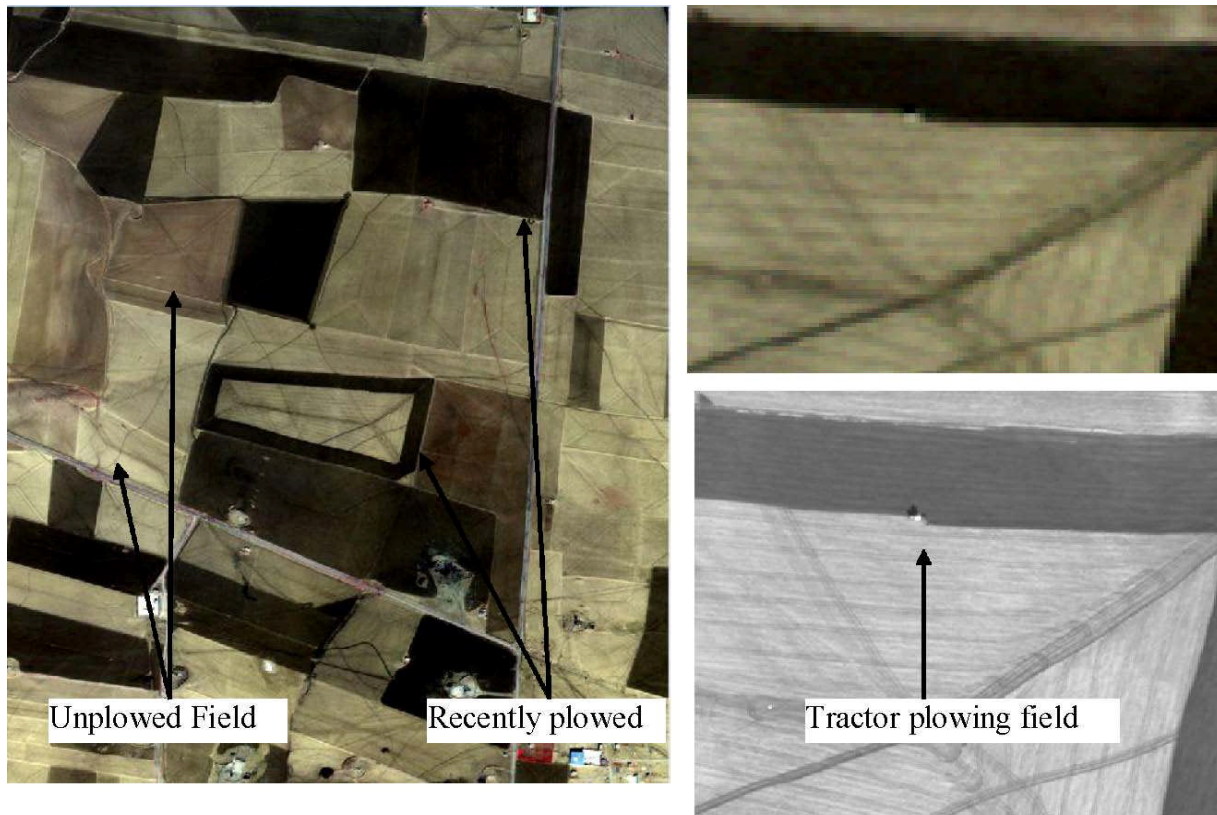


Figure 5. High resolution quickbird imagery12/03/2008 showing fieldpreparation activities in process for late season planting.